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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,575	05/03/2005	Patrice Bujard	SE/2-22792/A/PCT	4479

324 7590 01/18/2007  
CIBA SPECIALTY CHEMICALS CORPORATION  
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EXAMINER
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PARVINI, PEGAH

ART UNIT	PAPER NUMBER
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1755

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/18/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/533,575

Applicant(s)

BUJARD ET AL.

Examiner

Pegah Parvini

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-10, 12, 14, 16, 18 and 19 is/are rejected.
- 7) ☒ Claim(s) 4, 11, 13, 15 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date 20050725.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities: The spellings of the following words throughout the specification need to be corrected: "aluminium", "vapour", and "vaporisation".

Appropriate correction is required.

### ***Claim Objections***

2. Claim 7 is objected to because of the following informalities: The spelling of the term "vapour-deposition" needs to be changed to "vapor-deposition". Also, the spelling of the word "aluminium" needs to be changed to "aluminum". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claims 1-3, 5-9, 14, 16, and 18-19 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent Publication No. US 2005/0252410 to Bujard et al.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

5. With reference to claims 1, 2, and 9, the prior art teaches particles of plane parallel structures of silicon/silicon oxide generally having a length of from 1  $\mu\text{m}$  to 5 mm, a width of from 1  $\mu\text{m}$  to 2 mm, and a thickness of from 20 nm to 2  $\mu\text{m}$  and a ratio of length to thickness of at least 2:1 (paragraph 0003)]. In addition, the prior art teaches a multilayered pigment flakes prepared by vapor deposition of a separating agent layer onto a movable carrier and then deposition of  $\text{SiO}_y$  layers which for one layer,  $1.0 \leq y \leq 1.8$ , for the other  $0.7 \leq y \leq 0.99$ , and for another  $1.0 \leq y \leq 1.8$ , and finally separating the  $\text{SiO}/\text{Al}/\text{SiO}_y$  particles from the solvent (paragraphs [0130] to [0137]). It is noted that the three y-ranges for each range overlaps with the corresponding y, x, and z-ranges claimed in the instant application.

6. With reference to claim 3, the prior art discloses the use of a reflective material, especially aluminum (paragraph [0078], and [0136]).

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7. With reference to claims 7, 8, and 19, the prior art, as was explained in details for claim 1, discloses the vapor deposition process wherein the metal oxide is being deposited on the carrier (paragraphs [0130] to [0137]), and for which  $1.0 \leq y \leq 1.8$  for the first  $\text{SiO}_y$  layer being deposited.

8. With reference to claims 5, 6, 14, 16, and 18, the prior art discloses that the  $\text{SiO}_y$  flakes have a thickness in the range of 20 to 2000 nm (paragraph [0016]). It is noted that the prior art refers to all the layers by  $\text{SiO}_y$  in which it differentiate between them by specifying the y-ranges. In addition, the prior art teaches that if the metal used is aluminum, the thickness of the first layer of silicon oxide is between 20 to 100 nm (paragraph [0086]).

9. Claims 1, 2, 10, 12, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent Publication No. US 2005/0287090 to Bujard.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

10. With reference to claims 1, and 2, the prior art teaches platelet-shaped pigments having a length of from 1  $\mu\text{m}$  to 5 mm, a width from 1  $\mu\text{m}$  to 2 mm, and a thickness of

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from 20 nm to 2  $\mu$ m, and a ratio of length to thickness of at least 2:1 (paragraph [0001]).

The prior art, also, discloses that the core consist of a metal, especially aluminum (paragraph [0064]). Finally, the prior art teaches the vapor deposition of different  $\text{SiO}_{x1}$ ,  $\text{SiO}_{x2}$  or  $\text{SiO}_{y1}$  layers wherein  $0.03 \leq x1 \leq 0.7$ ,  $0.7 \leq x2 \leq 0.99$ , and  $1.0 \leq y1 \leq 1.95$  on a separating agent layer; furthermore, it discloses that other layers of  $\text{SiO}_{x1}$ ,  $\text{SiO}_{x2}$ , or  $\text{SiO}_{y1}$  can be deposited on the previous layers (paragraphs [0064], [0087] to [0092]). It is noted that as claims 1 and 2, in part (b), read, the  $\text{SiO}_x$  layer claimed, may be deposited on the core or on another silicon oxide layer. It is, further, noted that claims 1 and 2, in part (a), indicate that the first layer of silicon oxide,  $\text{SiO}_y$  as claimed, is optional.

11. With reference to claim 12, the prior art discloses that the first silicon oxide layer being applied could be either of  $\text{SiO}_{x1}$ ,  $\text{SiO}_{x2}$  or  $\text{SiO}_{y1}$  layers wherein  $0.03 \leq x1 \leq 0.7$ ,  $0.7 \leq x2 \leq 0.99$ , and  $1.0 \leq y1 \leq 1.95$  (paragraphs [0064]).

12. With reference to claims 10 and 20, the prior art discloses that the pigment is used in paints, textiles, ink-jet printing, cosmetics, coatings, plastics, printing inks, in glazes for ceramics and glass, and in security printing (paragraph [0001]).

***Allowable Subject Matter***

13. Claims 4, 11, 13, 15, and 17 are objected to as being dependent upon rejected claims, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. The prior art fail to disclose a multilayered platelet-shaped pigment with a core of a metallically reflecting material of either Ag, Al, Au, Cu, Cr, Ge, Mo, Ni, Ti, Zn, alloys thereof, graphite,  $\text{Fe}_2\text{O}_3$  and  $\text{MoS}_2$  which has a thickness of 20 to 100 nm or 40 to 60 nm or a thickness which has overlapping ranges with the claimed range. Additionally, the prior art fail to disclose that the silicon oxide layer, which is vapor deposited on optionally another silicon oxide layer or on the core, if being called  $\text{SiO}_x$ , has a range for  $x$  of  $0.05 \leq x \leq 0.50$ . It is noted that the prior art refers to silicon layers using different subscripts.

***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent Publication No. 2005/0013934 to Xiong et al.

US Patent Publication No. 2003/0209169 to Andes et al.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pegah Parvini whose telephone number is 571-272-2639. The examiner can normally be reached on Monday to Friday 8:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PP

  
DAVID SAMPLE  
PRIMARY EXAMINER